STATE OF MARYLAND

DHMH

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April 30, 2012

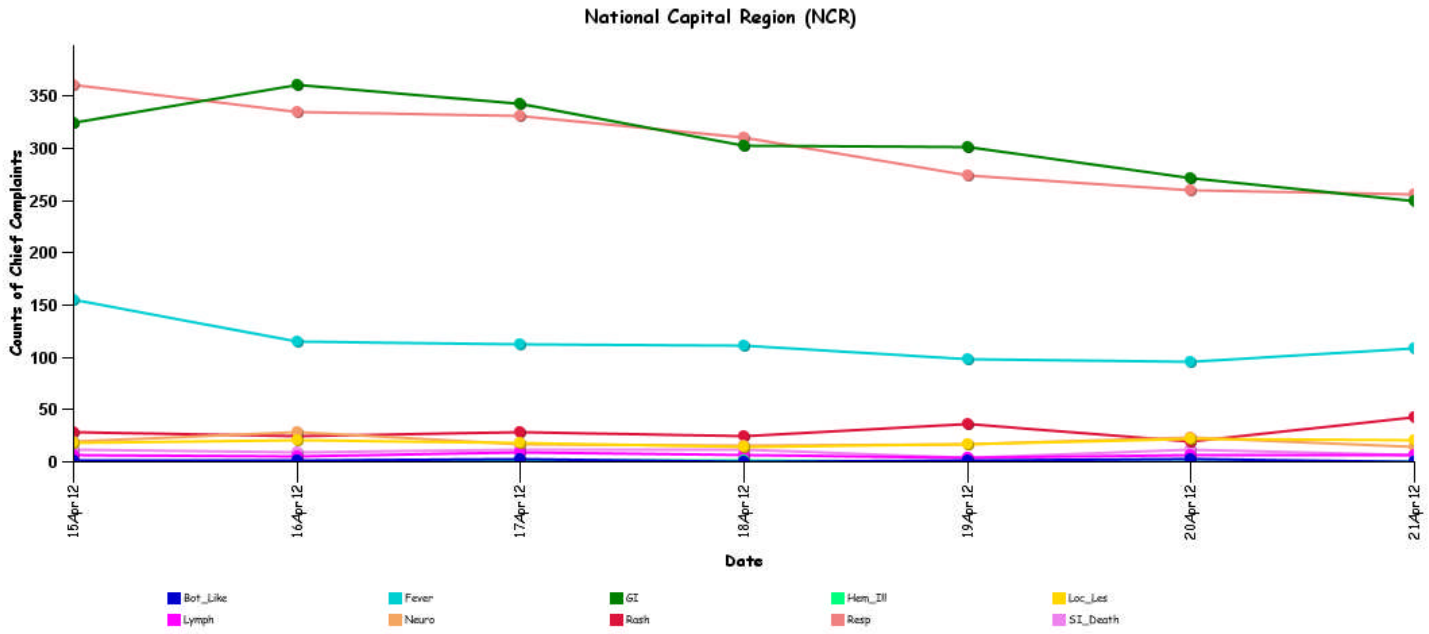
Public Health & Emergency Preparedness Bulletin: # 2012:16
Reporting for the week ending 04/21/12 (MMWR Week #16)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **No Active Alerts**
Maryland: **Level One (MEMA status)**

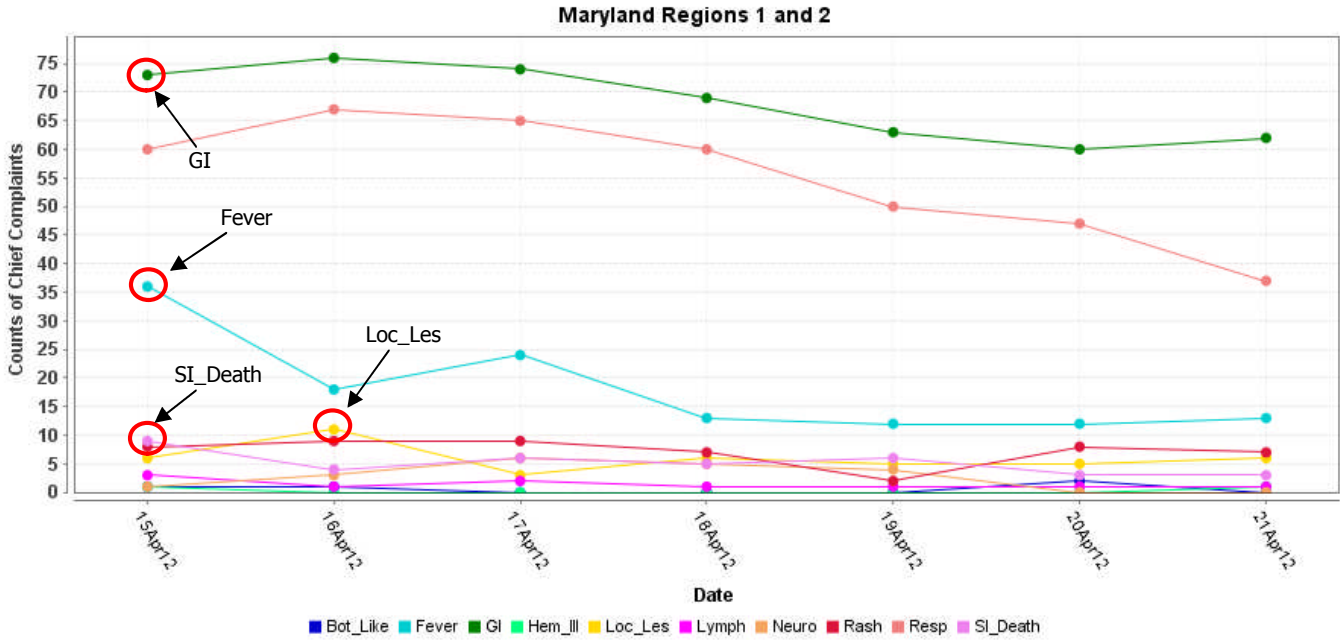
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

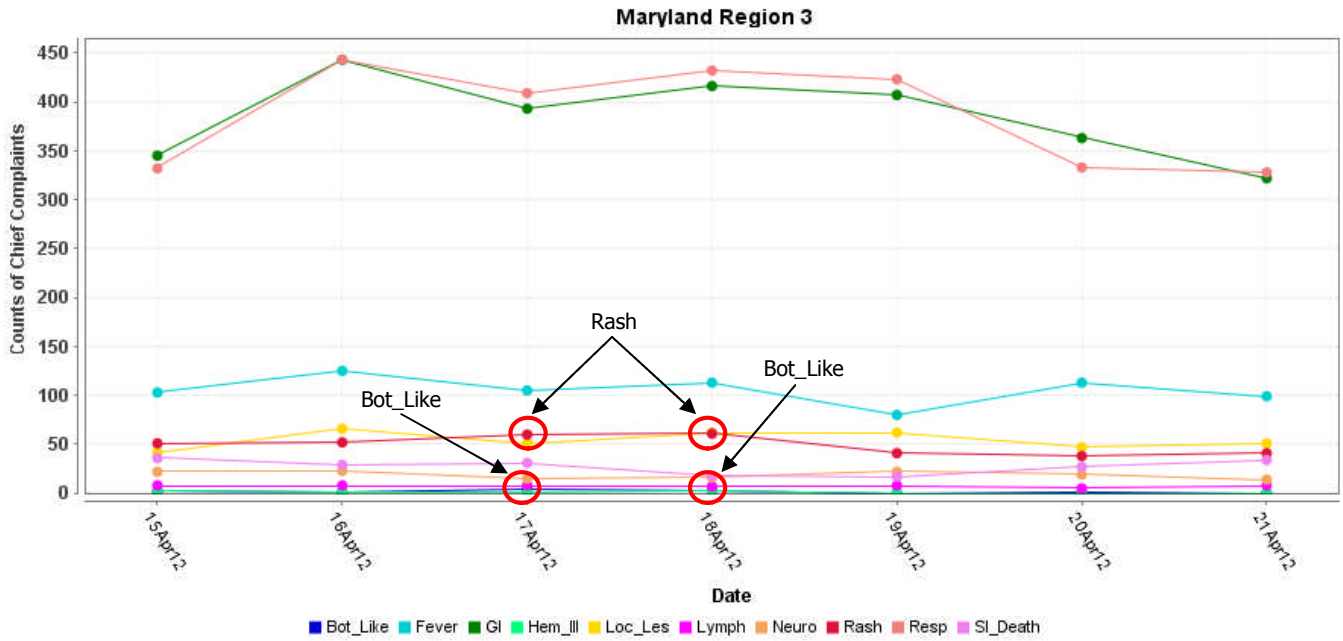


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

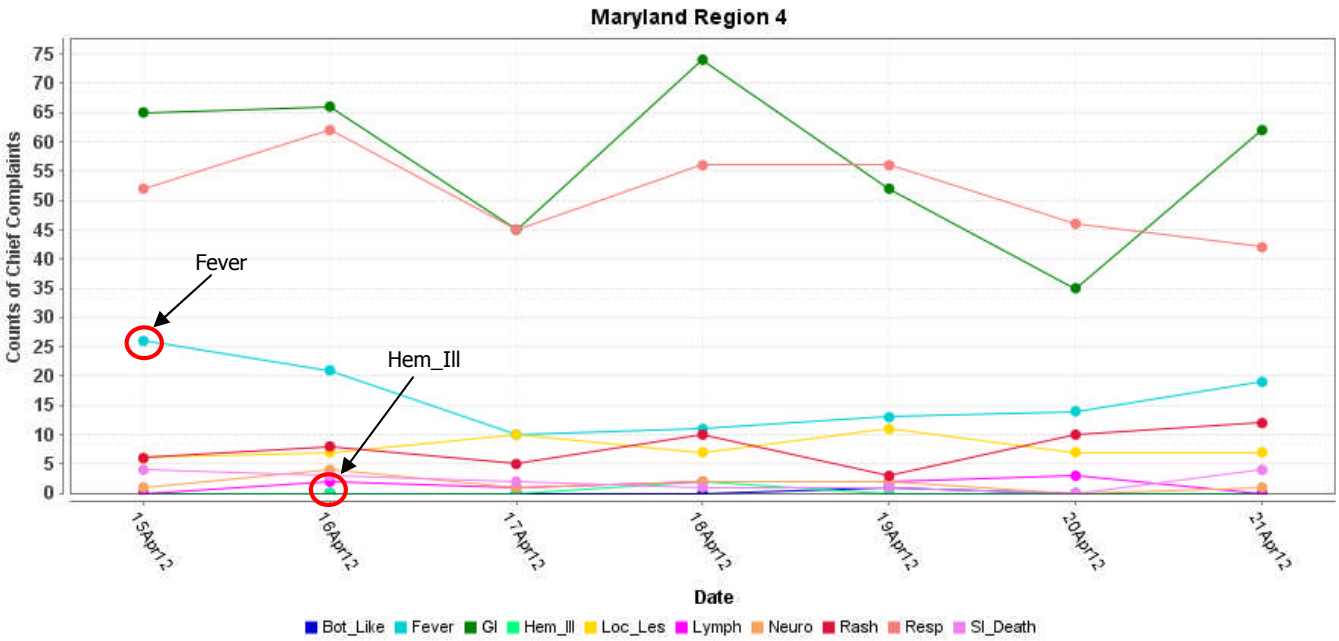
MARYLAND ESSENCE:



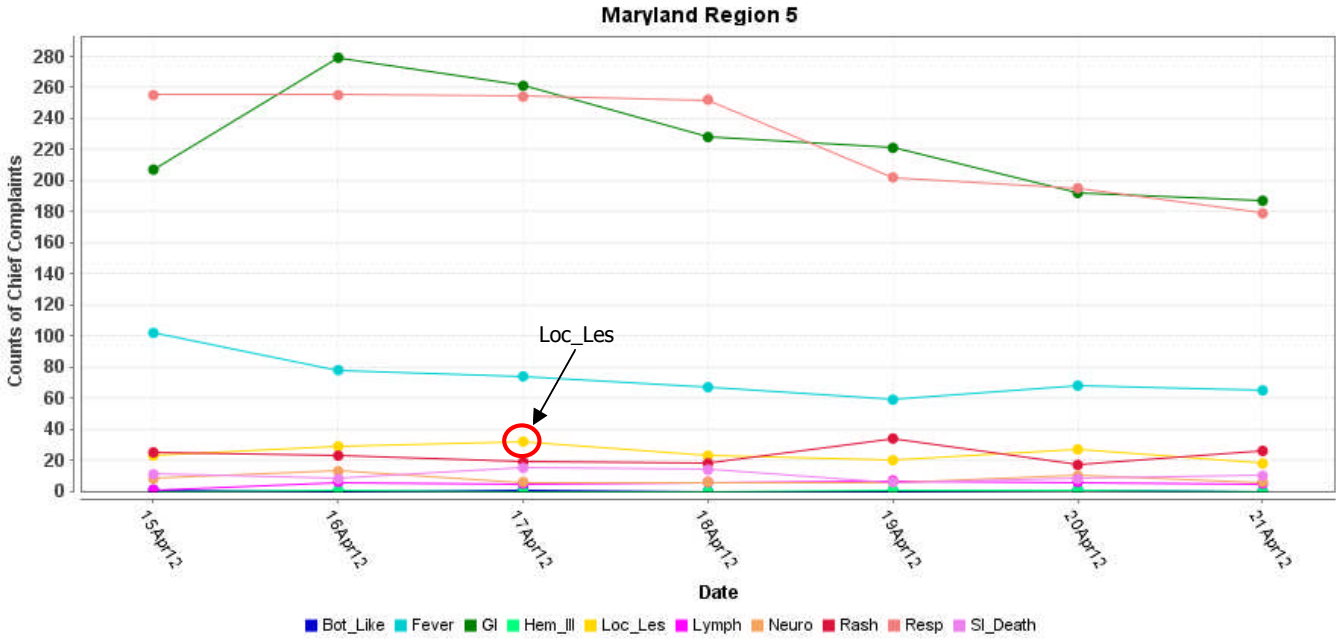
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



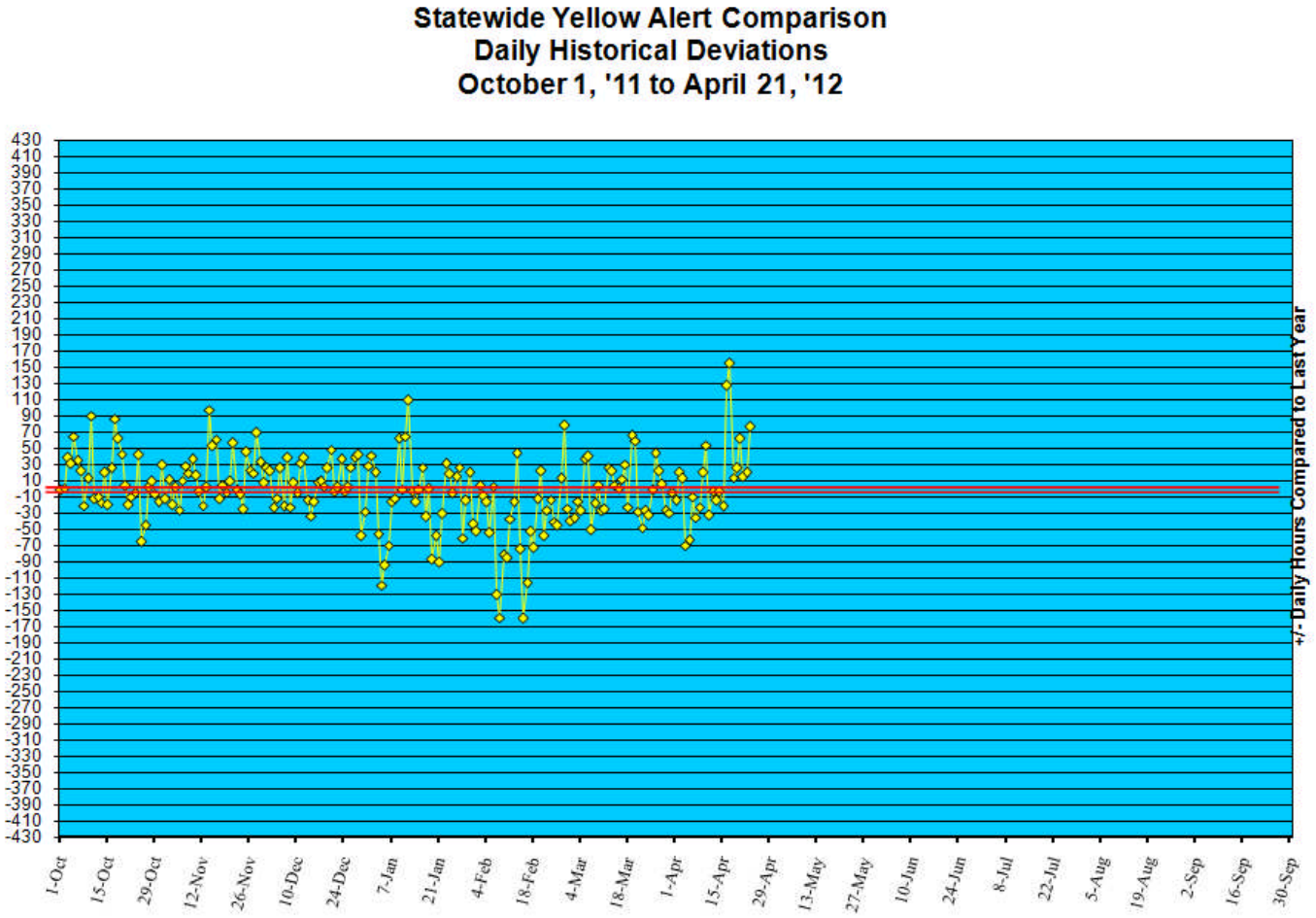
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/11.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in February 2012 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (April 15 – April 21, 2012):	9	0
Prior week (April 8 – April 14, 2012):	8	0
Week#16, 2011 (April 16 – April 22, 2011):	9	0

4 outbreaks were reported to DHMH during MMWR Week 16 (April 15-21, 2012)

1 Gastroenteritis outbreak
1 outbreak of GASTROENTERITIS in a Nursing Home

1 Foodborne outbreak
1 outbreak of GASTROENTERITIS/FOODBORNE associated with a Restaurant

2 Respiratory illness outbreaks
1 outbreak of INFLUENZA in an Institution
1 outbreak of INFLUENZA in an Assisted Living Facility

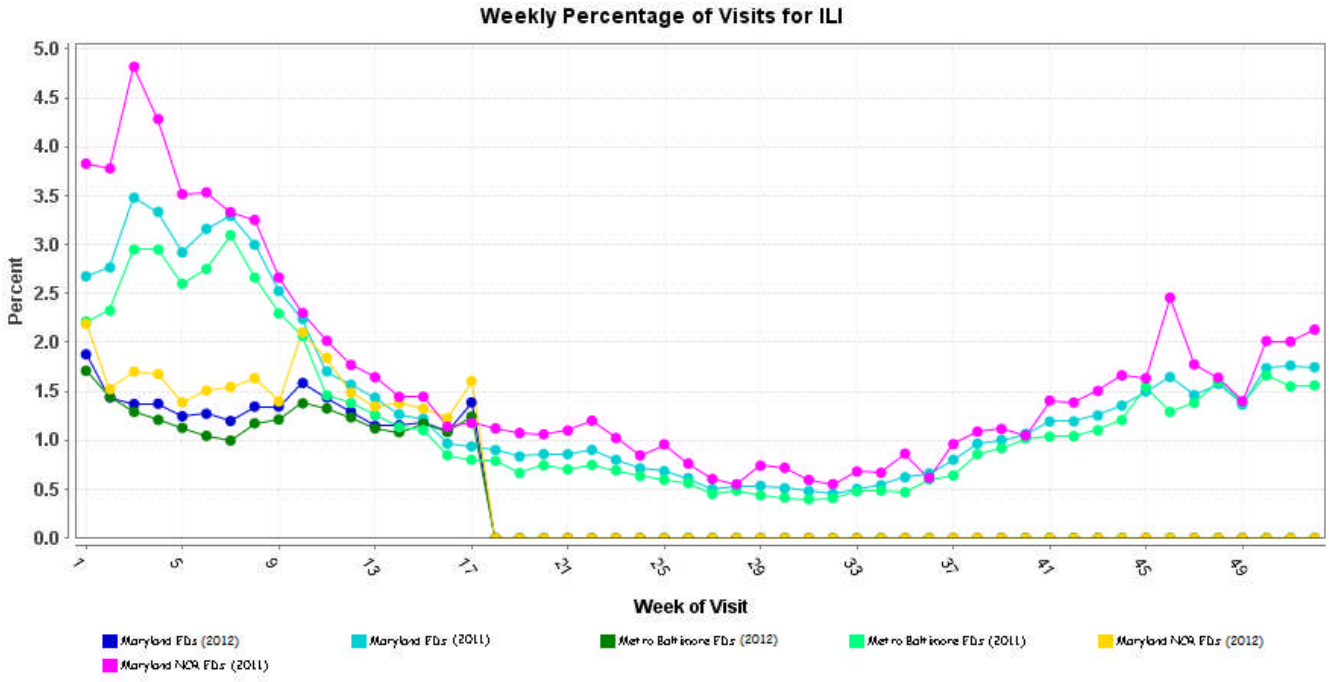
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity for Week 16 was: Sporadic Activity, Minimal Intensity.

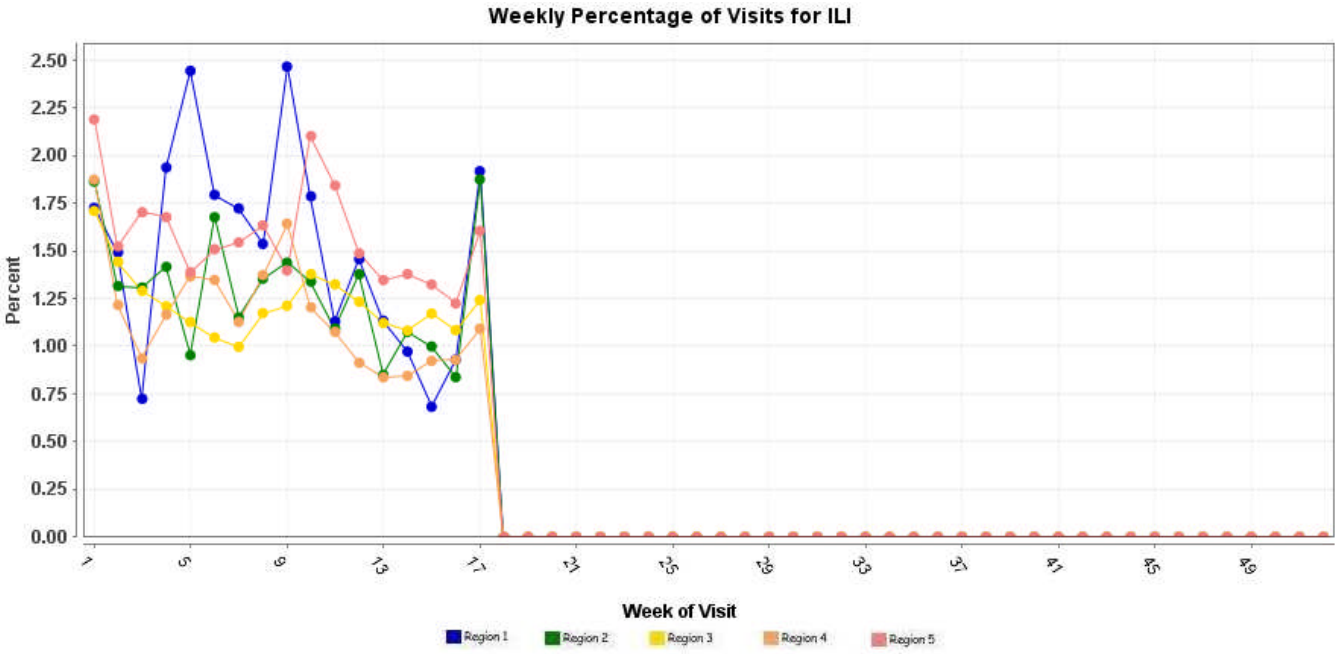
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



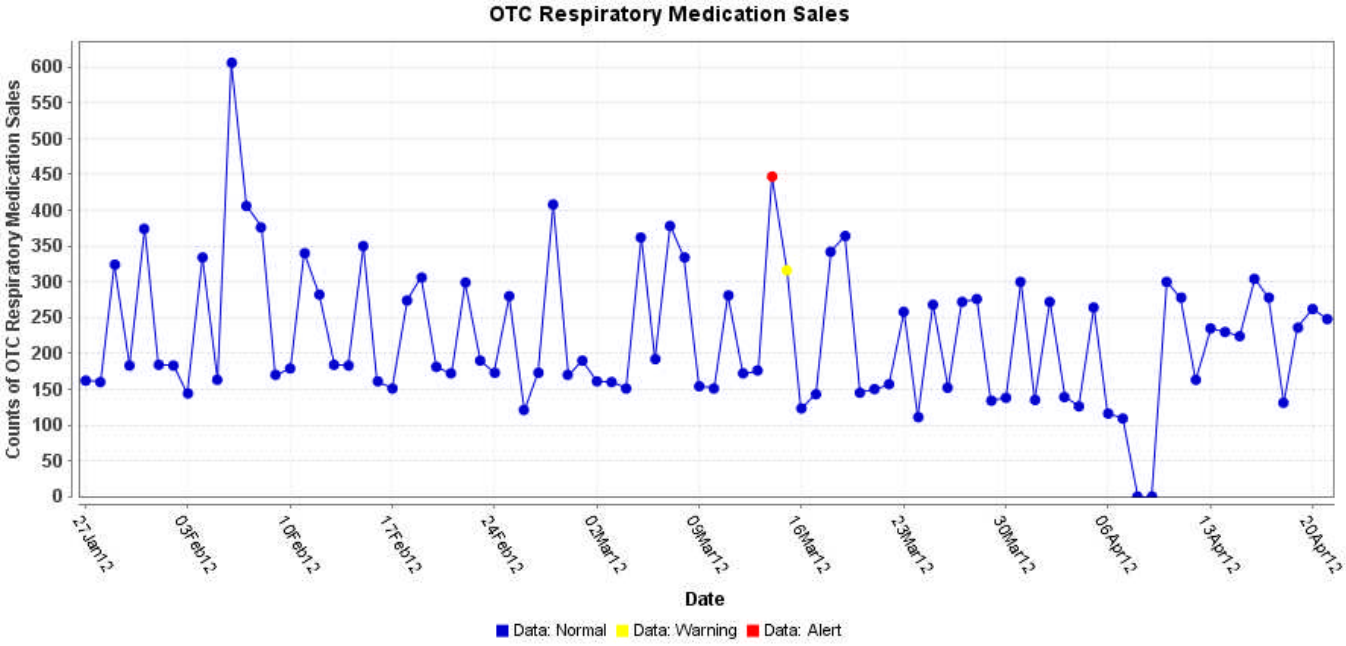
* Includes 2011 and 2012 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2012 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of April 12, 2012, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 602, of which 355 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

NATIONAL DISEASE REPORTS

CRYPTOSPORIDIOSIS (MINNESOTA): 21 April 2012, 97 people have reported cases of cryptosporidiosis since last month's outbreak at Edgewater Resort and Water Park in Duluth, according to the Minnesota Department of Health. 22 of those cases have been confirmed in laboratories. Minnesota Department of Health (MDH) epidemiologist Trisha Robinson said the confirmed cases probably only represent a fraction of people who were actually sickened by the parasite. The investigation of the outbreak is still in progress. "One different thing with cryptosporidiosis is the time from when a person is exposed to the time when they become sick can be as long as 2 weeks," Robinson said. "Pools were closed on 26 March, so we could still have people becoming ill 2 weeks after that, and their symptoms last anywhere from one to 2 weeks." Another unrelated cryptosporidiosis outbreak in Brainerd [Minnesota] last month resulted in 36 reported cases, with one case being confirmed in a laboratory. The symptoms of cryptosporidiosis include stomach cramps, fevers or diarrhea. It can be contracted by swimming in infected water, contact with animals or even drinking raw unpasteurized milk. "The way that cryptosporidiosis is typically introduced into the water park,and which we believe is the instance in both of these cases, is that it comes in from an infected user," Robinson said. In 2011, there were 305 laboratory-confirmed cases of cryptosporidiosis, according to preliminary MDH numbers. Robinson said one person was hospitalized in each of the Brainerd and Duluth outbreaks. "It certainly can be more dangerous to those who are immune-compromised: the children, the very elderly, pregnant individuals," Robinson said. "In Minnesota, we can see about 20 percent of individuals that would require hospitalization for this, so it is something that can cause very serious illness." Robinson said that people who have been sick with diarrhea in the previous 2 weeks should avoid swimming in recreational waters. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS, SEROTYPE BAREILLY (USA): 18 April 2012, A total of 141 individuals infected with the outbreak strain of Salmonella [enterica serotype] Bareilly have been reported from 20 states and the District of Columbia. The 25 new cases are from Connecticut (1), Georgia (1), Illinois (3), Louisiana (1), Maryland (3), Massachusetts (1), Mississippi (1), Missouri (2), New Jersey (1), New York (4), Pennsylvania (1), Virginia (3), Texas (1), and Wisconsin (2). Among 139 persons for whom information is available, illness onset dates range from 28 Jan 2012 to 1 Apr 2012. Ill persons range in age from 4 to 78 years, with a median age of 30. 59 percent of patients are female. Among 107 persons with available information, 21 (20 percent) reported being hospitalized. No deaths have been reported. Illnesses that occurred after 20 Mar 2012, might not be reported yet due to the time it takes between when a person becomes ill and when the illness is reported. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

E. COLI EHEC (OREGON): 17 April 2012, The E. coli [O157] outbreak linked to raw milk from a farm near Wilsonville expanded Tue 17 Apr 2012, with state health officials reporting more illnesses and another child hospitalized with kidney failure. At least 18 people who consumed milk from Foundation Farm have developed gastro-intestinal symptoms, said Dr. Katrina Hedberg, state epidemiologist. So far, 4 of them, including a 1-year-old, have been hospitalized with hemolytic-uremic syndrome, a kind of acute kidney failure. "These kids are very ill," she said. That bad news followed official confirmation linking Foundation Farm to the outbreak. Lab tests turned up E. coli O157:H7 in the farm's milk and in environmental samples collected at the property last week [week of 9 Apr 2012]. "The lab results confirmed what we already knew," she said. "We are not surprised." This is Oregon's 6th raw milk outbreak since 1993 and comes on the heels of another E. coli outbreak in Missouri linked to unpasteurized milk. The tests, conducted at a lab near Seattle that specializes in foodborne illnesses, found E. coli O157:H7 in manure samples from the farm. They also turned up in rectal swabs from 2 of 4 cows. But the most telling sign of all: they were in the milk. Harmful bacteria are not usually widespread in a product. To find it, epidemiologists have to test a contaminated sample. In this case, that means catching it in a few drops of milk. "The fact that it was found in the milk itself shows that it was probably contaminated at a high level," Hedberg said. Retail sales of raw cow's milk were banned by the Oregon Legislature in 1999 following 4 illness outbreaks between 1993 and 1997. But sales at small farms with no more than 2 lactating cows are allowed, provided they don't advertise. Foundation Farm sold raw milk to 48 families through a program in which they bought shares in a herd. Herd-share programs in Oregon are not regulated. "We know they exist, and we know that for people who want access to raw milk that's an option for them," said Bruce Pokarney, spokesman for the state Department of Agriculture. Jim Krahn, executive director of the Oregon Dairy Farmers Association, estimates there are 40 to 50 cow-share programs in Oregon. He said they sprung up in response to the state's ban on raw cow milk sales as a way to circumvent the law. He said all dairy producers, large and small, fight bacterial contamination. They clean cow's teats before milking but, he said, there is always a risk of bacteria from the hair on the udders getting into the milking device when it's put in place. Then the milk has to be cooled down immediately to prevent any bacteria from multiplying. Many small farms can't afford expensive refrigeration equipment, he said. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

BOLIVIAN HEMORRHAGIC FEVER (BOLIVIA): 21 April 2012, On Friday [21 Apr 2012], the head of epidemiology of the Beni Department [state equivalent] Health Services (SEDES), Wilfredo Camargo, reported the death of another person from hemorrhagic fever in this Amazon region. "This is a

confirmed case of hemorrhagic fever; the patient died on Thursday [19 Apr 2012]. He came from the Campo Verde ranch in the San Ramon municipality," he indicated. The [health] authority added also that another person with this disease arrived in Trinidad [Beni province] from the San Silvestre ranch, also in the San Ramon municipality, near the Negro and Machupo Rivers, where the mouse that transmits the disease [virus] proliferates. He said that this other case with the disease symptoms is an inpatient in the San Ramon Hospital. Camargo explained that the contingency plan that had been expected to be executed was cancelled due to lack of financial resources, and due to this, is was foreseen that the Center for Emergency Operations worked for at least 30 days in this area. So far this year [2012], 3 people in Beni died of hemorrhagic fever and there are 50 suspected cases. (Viral Hemorrhagic Fevers are listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

BOTULISM (CANADA): 20 April 2012, The Canadian Food Inspection Agency (CFIA) is warning the public not to consume the salted and cured fish product (fesikh) described below because it may be contaminated with spores of Clostridium botulinum. Toxins produced by this bacteria may cause botulism, a life-threatening illness. The affected product, whole fesikh mullet, was sold in clear vacuum-packaged bags of varying count and weight, bearing no code or date information. This product was sold from Lotus Catering and Fine Food, 1960 Lawrence Ave. E, Toronto, ON, on or before 17 Apr 2012. There have been 3 reported illnesses associated with the consumption of this product. Food contaminated with C. botulinum toxin may not look or smell spoiled. Consumption of food contaminated with the toxin may cause nausea, vomiting, fatigue, dizziness, headache, double vision, dry throat, respiratory failure and paralysis. In severe cases of illness, people may die. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS (AUSTRALIA): 17 April 2012, Workers on a gas production platform in the Bass Strait want their barge returned to port after a major outbreak of salmonella and gastroenteritis. One construction worker on the Origin Energy project has been flown to hospital in Melbourne. In total, 36 of more than 200 workers have fallen ill in the 2 weeks since the outbreak, their union said. "We are recommending a full vessel decontamination, but these calls are being pushed aside," Australian Workers Union Victorian state secretary Cesar Melham said. Crew says their calls to evacuate are being ignored in order to keep the 345 million dollar platform expansion project on-track. An Origin Energy and Downer Engineering spokesman said they had been working with Tasmania's Department of Health and best-practice guidelines had been followed. "We have been working with . . . on-site health professionals to institute preventative measures including quarantine and to continue infection control measures," the spokesman said. Mr. Melham said the outbreak was believed to have stemmed from improperly prepared meat. However, workers continued to fall ill following a clean-up and other control measures that took place 4 days ago. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

LISTERIOSIS (NORTHERN IRELAND): 15 April 2012, An elderly patient has died following an outbreak of listeriosis in two Northern Ireland hospitals. The pensioner was one of two patients in the Antrim Area Hospital who contracted the food-borne bacteria. Another acquired the bug in the Causeway Hospital on the region's north coast. The patient who died was already ill but listeriosis has been confirmed as a contributory cause of death. Both hospitals are managed by the Northern Trust, which has declared an outbreak. The Trust's director of nursing Olive MacLeod said: "The person who died was a frail, elderly patient who had other illnesses but this Listeria infection did contribute to their death." Listeriosis is usually associated with refrigerated food stuffs. Chilled meats, soft cheeses, cold cuts of meat, pates and smoked fish are all potential sources. Ms MacLeod said a full investigation was under way but said the hospitals were satisfied with how cold food was managed. She said listeriosis was "uncommon" in a hospital setting. "Normally there would be between three to five cases of listeriosis per annum in Northern Ireland," she added. "Because these three cases have occurred within a short period of time, we are declaring an outbreak." A series of measures have been introduced in response to the outbreak with visitors to the hospitals being told not to bring food in from the outside. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	ACUTE condition that may represent exposure to botulinum toxin ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy. ACUTE descending motor paralysis (including muscles of respiration) ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.	Botulism
Hemorrhagic Illness	SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria	VHF
Lymphadenitis	ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)	Plague (Bubonic)
Localized Cutaneous Lesion	SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia INCLUDES insect bites EXCLUDES any lesion disseminated over the body or generalized rash EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease	Anthrax (cutaneous) Tularemia
Gastrointestinal	ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea EXCLUDES any chronic conditions such as inflammatory bowel syndrome	Anthrax (gastrointestinal)

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media) SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE *acute exacerbation* of chronic illnesses.)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Neurological	ACUTE neurological infection of the central nervous system (CNS) SPECIFIC diagnosis of acute CNS infection such as pneumoccocal meningitis, viral encephailitis ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephailitis NOS, encephalopathy NOS ACUTE non-specific symptoms of CNS infection such as meningismus, delerium EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's	Not applicable
Rash	ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs) SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheaic dermatitis, rosacea EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema	Smallpox
Specific Infection	ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal) INCLUDES septicemia from known bacteria INCLUDES other febrile illnesses such as scarlet fever	Not applicable

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Fever	ACUTE potentially febrile illness of origin not specified INCLUDES fever and septicemia not otherwise specified INCLUDES unspecified viral illness even though unknown if fever is present EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome	Not applicable
Severe Illness or Death potentially due to infectious disease	ACUTE onset of shock or coma from potentially infectious causes EXCLUDES shock from trauma INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths	Not applicable